

CLAIMS

1. Process for preparing a container consisting of a wafer (22), said preparation being carried out prior to the filling of said container with a food product, the wall of said container extending between an outwardly open mouth zone and a narrower zone forming an outward end, in which process, in order to preserve the crunchy nature of the wafer, the container is arranged such that the closed, narrow end of the wafer forms the bottom tip of the container and the inner wall of the container is sprayed with a liquid coating agent, said coating agent being capable of solidifying rapidly in order to form a coating layer intended, after the food product has been placed in the container, to separate the wafer and the food product, said coating layer being provided in order, subsequently, to be consumed at the same time as the wafer and said food product, characterized in that the inside of the container is sprayed with an excess quantity of coating agent that is sufficient to guarantee that no coating-gap zone remains on the inner wall of the wafer that is to come into contact with the food product, the excess liquid coating agent collecting, under gravity, at the bottom tip of the container, and in that, prior to the solidification of said excess, the excess is sucked out of the container, subsequent solidification of the coating layer thus making it possible to establish a continuous barrier over the inner wall of the wafer.
2. Process according to Claim 1, characterized in that the excess coating agent sucked out is recycled to the supply for spraying the inside of the container.

3. Process according to Claim 2, characterized in that the coating agent is sucked out via a pipette (6) of which one (6a) end has sufficiently small dimensions to be able to be positioned close to the bottom tip of the container, said end including at least one suction orifice (12), and in that, after suction, the orifice(s) (12) is (are) supplied with a gaseous flow in order to expel any possible clogging particles that might be found therein.
4. Process according to Claim 3, characterized in that the suction orifice(s) (12) has (have) a gaseous flow blown through it (them) which ejects the particles in the same direction as the passage direction of the flow of recycled coating agent.
5. Process according to Claim 4, characterized in that the suction orifice(s) (12) is (are) arranged in the vicinity of the base of a pipette (6) that slides in a guide (7) capable of scraping the outer wall of said pipette (6) in order to cause the particles of wafer sticking to said outer wall to fall, under gravity, into the container.
6. Process according to Claim 5, characterized in that the suction orifice(s) (12) is (are) produced by arranging it (them) laterally on the pipette (6), and in that provision is made for the guide (7) to include a chamber (10) for blowing the gaseous flow in order to expel the particles of wafer wedged in the orifice(s) (12).
7. Process according to one of Claims 1 to 6, characterized in that the container is a substantially conical cornet.

8. Process according to one of Claims 1 to 7, characterized in that the coating agent is chocolate.
- 5 9. Process according to one of Claims 1 to 8, characterized in that the food product is an ice-cream.
- 10 10. Container formed from a wafer (22) coated on the inside with a continuous layer of coating agent, characterized in that it is obtained by means of the process according to one of the Claims 1 to 9.
- 15 11. Installation for implementing the process according to one of Claims 1 to 9, comprising, firstly, a conveyor (1) with discontinuous displacement in successive steps, said conveyor (1) including elements on each of which at least one receptacle (2) is provided in order to receive
20 a container formed by a wafer (22), the wall of said container extending between an outwardly open mouth zone and a narrower zone forming an outwardly closed end, said container being arranged in a receptacle such that its closed end
25 forms the bottom tip of the wafer and, secondly, a spray station (3) on which is arranged, in line with each container carried by a conveyor element (1) that arrives opposite the spray station (3) at a stop instant of said conveyor, a spray head (4)
30 capable of spraying the inner wall of the wafer (22), said spray head (4) being able to move between a low position in which, in order to distribute the coating agent, the head (4) is positioned in or in the vicinity of the mouth of
35 the container, and a high position that allows the displacement of the conveyor (1), characterized in that it includes, thirdly, a suction station (5) on which is arranged, in line with each container carried by a conveyor element (1) that arrives

opposite the suction station (5) at a stop instant of the conveyor (1), a suction pipette (6) that includes, at its bottom end (6a), at least one suction orifice (12), the suction pipette (6) being able to move between a low position, in which its bottom end (6a) arrives in the vicinity of the bottom tip of the wafer (22), and a high position that allows the displacement of the conveyor (1), said suction station (5) being located downstream of the spray station (3) in the direction of displacement of the conveyor (1).

12. Installation according to Claim 11, characterized in that the high position of each pipette (6) of the suction station (5) brings the suction orifice(s) (12) into a chamber (10) where a gaseous flow blows through the orifice(s) (12).

13. Installation according to Claim 12, characterized in that the suction orifice(s) (12) is (are) arranged laterally in the vicinity of the base of the suction pipettes (6), and in that the gaseous flow blown in the chambers (10) expels the particles of wafer wedged in the orifices (12).

14. Installation according to one of Claims 11 to 13, characterized in that the displacement of each suction pipette (6) between its low position and its high position takes place by means of a guide (7) that scrapes the outer wall of the pipette (6) associated with it in order to cause the particles of wafer sticking to said outer wall to fall, under gravity, into the container.

15. Installation according to one of Claims 12 to 14, characterized in that each pipette (6) includes an inner channel via which the excess coating agent is conveyed to a reservoir (14) under reduced pressure, the gaseous flow that blows through the

orifice(s) (12) originating from an air inlet (11) provided in each chamber (10), this blowing air being sent towards the reservoir (14) as is the sucked-out coating agent.

5

16. Installation according to Claim 15, characterized in that the reservoir(14) is equipped with a device for regulating the air pressure prevailing therein.

10

17. Installation according to either of Claims 15 and 16, characterized in that the reservoir (14) supplies a pump (17) that provides the coating agent to the spray station (3) at a pressure that is greater than atmospheric pressure.

15

18. Installation according to one of Claims 14 to 17, characterized in that it employs a coating agent that is fluid when hot and solidifies by simple cooling to ambient temperature, and in that, between, on the one hand, the pump (17) that provides the coating agent to the spray station (3) and, on the other hand, the spray station (3) itself, a heat exchange (18) is interposed to guarantee maintenance of the coating agent at a temperature that is sufficient for the fluidity of said agent to allow correct functioning of the spray (3) and suction (5) stations and also circulation without clogging of the coating agent upstream and downstream of the reservoir (14).

20

25

30

19. Installation according to Claim 18, characterized in that at least one filter (19) is interposed on the pipes (13, 20, 21) for circulating the coating agent.

35

20. Installation according to Claim 19, characterized in that it includes a filter (19) arranged on the

- 18 -

circulation pipe connecting the heat exchanger (18) and the spray station (3).

- 5 21. Installation according to one of Claims 11 to 20, characterized in that the container is a substantially conical cornet.
- 10 22. Installation according to one of Claims 11 to 21, characterized in that the coating agent is chocolate.
- 15 23. Installation according to one of Claims 11 to 22, characterized in that the product packaged in the container is an ice-cream.